

EFFECTIVE UTILIZATION OF FISHERY HARBOR IN COLD REGION	Hideki HONDA, Akira IMAIZUMI, Atsumi FURUYA, Harukuni TACHIBANA, Hiroshi SAEKI	1-4
THE CHARACTERISTICS OF INTERNAL WAVES IN THE SEA OF JAPAN.	Masabumi SETO, Shinya OTAKE, Zyuichi OKUNO, Makoto	5-9
EXPERIMENTAL STUDY ON THE BEHAVIOR OF BIVALVES OVER SAND RIPPLES UNDER OSCILLATORY FLOW	Toshihiko YAMASHITA, Hirotsugu KANEKO, Masaki NIIYAMA, Shinichiro NAGATA, Shigeshi	11-15
GROWTH OF SHORT-NECK CLAMS IN LAKE SAROMA BY GROUND HEIGHT	Kenji YANO, Toshiro YAMADA, Shozo SAKKURABA, Yoshihiro	17-22
MONITORING ENVIRONMENTAL HABITAT OF SHORT NECKED CLAM AT THE ARTIFICIAL POCKET BEACH	Boon Keng Lim, Yoshinori KOSHIKAWA, Naruo FUKUDA, Hidenobu MATSUOKA	23-28
STUDY ON THE ZONATION OF MACRO ALGAE : VERTICAL DISTRIBUTION AND CURRENT ENVIROMENTS IN EISENIA BILCYCLIS SETCHELL AND ECLONIA CAVA KJELLMAN	Akihito SUGAWARA, Masabumi SETO, Teruhisa KOMATSU	29-34
ESTIMATION ON THE HABITAT OF ROCKY-BENTHOS IN WAVE ENVIRONMENT	Yuji MACHIGUCHI, Takuya YAMASHITA, Kimihito ITO, Kenji YANO	35-40
MODEL TESTS ON STABILITY AND AMBIENT CURRENT OF STEEL ARTIFICIAL REEFS	Kinji SEKITA, Junya MAKI, Masaki TANIYAMA, Masafumi TADUKE	41-46
FIELD OBSERVATION ON THE RELATIONSHIP BETWEEN TOPOGRAPHY AND LIVING CONDITIONS OF MARINE ORGANISMS IN MAN-MADE ROCKY COAST	Masao INOUE, Hiroaki SHIMADA, Hidetaka SAKURAI, Tadashi TETSUKAWA	47-52
EFFICACY OF SURFACE TREATMENT OF ARMOR CONCRETE BLOCKS CONSIDERED TO PARASITISM SEAWEED	Wataru ANDO, Sumimichi YAMAMOTO, Makoto Ikegami	53-57
RESEARCH ON A METHOD OF THE BREEDING OF SEAWEED BEDS ON COASTAL STRUCTURES	Shigeshi KITAHARA, Hideo SASAKI, Yoshinori TAKEDA, Hideto NARUMI, Hiroki SODENO,	59-64
SEISMIC RESPONSE OF OFFSHORE THERMAL POWER PLANT UTILIZES THE SPACE UNDER SURFACE OF WATER	Toshiya KYONO, Norio KAINUMA, Yoshio OHKUMA, Jun WANG, Tomio TSUZUKI, Koji MIYAMOTO	65-70
SEISMIC BEHAVIOR OF A CAISSON TYPE QUAY WALL RESTING ON PILE FOUNDATION WITH EXPANDED BASE	Tomiya TAKATANI, Yoshihiko MAENO, Hirotsuke KODAMA	71-76
RELIABILITY ANALYSIS METHOD OF DIFFERENTIAL SETTLEMENT OF A SUBMARINE CLAYEY DEPOSIT	Yoshihisa MIYATA, Keiji KOGURE, Yusuke HONJO	77-82
THE NEW DIRECT MEASUREMENT WAY OF UNDERGROUND STEEL SHEET-PILE DISPLACEMENT	Norio TSURUTA, Kennji SEKIYA, Katuyasu HAYASHI	83-88
THE DESIGN AND CONSTRUCTION OF CW PIPELINE FOR LUMUT THERMAL POWER STATION PROJECT	Kenichi INOUE, Hideo IZAKI, Masashi Ikegami, Yukio	89-94
APPLICATION OF "INCLINED LEVEE BODY TYPE BREAKWATER" FOR THE SEA AREA THAT THE DEEP WATER WAVE EFFECTS IN	Tetsugen NAKAYAMA, Ikuro SHIRAIISHI, Hideyuki KIDA, Taro SEKIGUCHI, Hiroshi OKUBO, Masamitsu NAKAIZUMI	95-100
WAVE HEIGHT DISTRIBUTION ALONG STRUCTURES INDUCED BY OBLIQUELY INCIDENT IRREGULAR WAVES	Tetsu MEMITA, Tetsuo SAKAI	101-106
NEAR-SHORE CURRENT ANALYSIS AROUND KRUENG ACEH RIVER MOUTH, INDONESIA	Subandono DIPOSAPTONO, Akira MANO	107-112
FUNDAMENTAL STUDY ON LAMINAR BOUNDARY LAYER CHARACTERISTICS UNDER IRREGULAR WAVES	Mustafa Ataus SAMAD, Hitoshi TANAKA	113-118
RELATION BETWEEN WAVE CONTROL AND ENERGY LOSS FOR A FLEXIBLE SHEET -TWO-DIMENSIONAL TYPE-	Shinsuke TOMATSU, Yukio SATO, Kenichiro HAMANAKA	119-124
EXPERIMENTAL STUDY ON WAVE-GENERATED SOUND PRESSURE FROM BOTTOM SEATED SUBMERGED STRUCTURES	Norimi MIZUTANI, Atsushi SUZUKI, Koji NAITO, Takashi TOMITA , Koichiro IWATA	125-130
ANALYSIS FOR INTERACTION BETWEEN WAVES AND MOTIONS OF FLOATING BODY WITH THE BOUNDARY ELEMENT METHOD	Masami OHASHI, Kenichiro HAMANAKA, Yukio SATO	131-136
RESONANT MOTION OF A SEMI-SUBMERSIBLE IN WAVES	Shinichi ARAI, Masatomo NAGAO, Mitsuo KAMIOKA, Tomoki, IIZUKA	137-142
DESIGN OF MOORING FACILITIES FOR MEGA-FLOAT DEMONSTRATION EXPERIMENTS	Kinji SEKITA, Hiroshi OKUBO, Kunihiro Ikegami, Chiaki SATO	143-148
WAVE RESPONSE ANALYSIS OF A VERY LARGE FLOATING STRUCTURE CLOSE TO A BREAKWATER	Naoyuki NAKAMURA, Tomoaki UTSUNOMIYA, Eiichi WATANABE	149-154
WAVE RESPONSE ANALYSIS OF A FLOATING BRIDGE FOR STRAIT CROSSING	Yuichirou HARA, Tomoaki UTSUNOMIYA, Eiichi WATANABE, Shougo MATSUNAGA, Haruhiko UETSUKA, Shigeru KOBAYASHI	155-160
TRIAL MANUFACTURE OF THE BREAKING WAVE GAUGE AND MEASUREMENT OF MULTI-DIRECTIONAL RANDOM WAVE BREAKING	Koichiro IWATA, Naoto KAWASHIMA, Tatuya NIIMI, Takasi TOMITA, Dong Soo HUR, Yukihisa	161-166
HARBOUR OSCILLATION ANALYSIS OF TOMAKOMAI EAST PORT WITH BEM	Yasuhisa FURUTA, Keiji NOMURA, Kenichiro HAMANAKA	167-172

MOVING PROCESS OF THE SHORELINE AND SAND BAR UNDER FIELD MEASUREMENTS.	Shozo TOMAKI, Mitsuo TAKEZAWA	173-178
STATISTICAL ANALYSIS OF DAMAGED SEA WALLS	Tomotsuka TAKAYAMA, Hajime MASE, Masahiko YAMADA	179-184
BEACH CHARACTERISTICS AND SAND FILL MOVEMENT OF THE KASHIWAZAKI BEACH.	Toshinori ISHIKAWA, Hiroshi SHIMADA, Kou FURUIKE, Toshiro SANNAMI, Masumi SERIZAWA	185-190
EXPERIMENTAL STUDY ON SEDIMENT MOVEMENT IN A CHANNEL WITH MODEL REEF	Katsuya HIRAYAMA, Haruhiro MARUYAMA, Tetsuya HIRAISHI	191-196
MODELING OF FORMATION OF SCARP ASSOCIATED WITH OFFSHORE DREDGING	Masumi SERIZAWA, Takaaki UDA, Toshiro SANNAMI, Kou FURUIKE, Yasutsugu KANDA	197-202
MECHANISM OF LARGE CUSPATE TOPOGRAPHY FORMATION AT A RIVER MOUTH	Daisuke FUKUSHI, Subandono DIPOSAPTONO, Akira MANO, Masaki SAWAMOTO	203-208
BEACH CHANGES AROUND RIVER MOUTH CAUSED BY ELONGATION OF RIVER MOUTH JETTY -THE EXAMPLE AT ARAKAWA AND KINOTO-DAINICHI RIVERS IN NIIGATA PREFECTURE	Takaaki UDA, Soichi KOBAYASHI, Shinji IGARASHI, Katsushige KAKIICHI, Shinjiro OMORI, Toshiyuki KUROKI	209-214
A STUDY ON RIVER MOUTH IMPROVEMENT OF FLOODWAY OF OHYA RIVER FLOWING INTO SHIAUOKA COAST IN SURUGA BAY	Takaaki UDA, Morinobu OHISHI, Tomoyuki NAGANAWA, Go ASANO, Kousuke YAMAJI	215-220
RELATION BETWEEN FORMATION OF SAND SPITS ON LAKESHORE AND CONSTRUCTION OF SEAWALL IN WILD FLOWER PARK IN LAKE SAROMA	Takaaki UDA, Kou FURUIKE, Toshiro SANNAMI, Masumi SERIZAWA, Akira KAWAMORI, Yoshinori YAMAGAMI, Masayuki SEZUKI, Yasutsugu KANDA,	221-226
A METHOD TO CONSIDER CAUSES OF BEACH CHANGES FROM LIMITED FIELD DATA -THE EXAMPLE OF KATASE-HIGASHI BEACH, KOYURUGI POINT AND SHICHIRIGA-HAMA BEACH-	Takaaki UDA, Toshiro SANNAMI, Masumi SERIZAWA, Kou FURUIKE	227-232
FIELD OBSERVATION OF COASTLINE IN KAGAWA AND TOKUSHIMA PREFECTURES	Takaaki UDA, Hisanobu GOMI, Takayuki KURATA, Hiroki IKEDA, Toshinori ISHIKAWA	233-238
FIELD OBSERVATION OF COASTAL CONSTRUCTION SITE OF HITACHI BYPASS ROAD FACING THE PACIFIC OCEAN	Takaaki UDA, Hiroshi SHIMADA, Toshinori ISHIKAWA	239-244
CAUSES OF DAMAGE OF SEAWALL ON HIRONO COAST IN SHIZUOKA PREFECTURE	Takaaki UDA, Morinobu OHISHI, Naoki ITABASHI, Junichi ARIMURA	245-250
FIELD OBSERVATION OF NATA COAST AND BAYSHORE IN MORIYE BAY IN OITA PREFECTURE	Takaaki UDA, Satoko SEINO, Masumi SERIZAWA, Kou FURUIKE, Toshiro SANNAMI	251-256
BEACH EROSION OF SHONAN COAST DUE TO TYPHOON 9720	Takaaki UDA, Takeshi UCHIDA, Koichi HIRANO, Susumu	257-262
FIELD OBSERVATION OF BEACH EROSION CAUSED BY TYPHOONS 9707 AND 9709 ON SHONAN COAST	Takaaki UDA, Takeshi UCHIDA, Yuki TAKAHASHI, Susumu NISHIMURA, Shinichi FUKUYAMA	263-268
BEACH EROSION TRIGGERED BY EXTENSION OF BREAKWATER OF SHINKAWA FISHERY HARBOR LOCATED IN SOUTHWEST PART OF NIIGATA PREFECTURE -PROBLEMS AND FUTURE MEASURES-	Takaaki UDA, Yasutsugu KANDA	269-274
REDUCTION OF LONG PERIOD WAVES IN HARBOR BY ARTIFICIAL BEACH	Tetsuya HIRAISHI, Junzo HASEGAWA, Keiji KUROKI	275-279
STUDY ON THE WAVE-CONTROL GATE AGAINST SECONDARY UNDULATION IN THE FISHING PORT	Kouji MITSUHASHI, Takashi WAKABAYASHI, Masaaki YAMAMOTO, Akiyoshi NAKAYAMA, Kiyoshi MITSUHASHI, Masao TAKAHASHI	281-286
CONSIDERATION ON REDUCTION OF LONG PERIOD WAVE REFLECTION	Takashi TOMITA, Tetsuya	287-292
HYDRAULIC MODEL STUDY ON REDUCTION OF RUNUP OF TSUNAMI BY COASTAL STRUCTURES	Katsuhiko NAKAMURA, Takayuki SASAKI, Akiyoshi NAKAYAMA	293-298
THE EXPERIMENTAL STUDY OF THE TIDAL CURRENT FORCE ON TWIN-TOWER PIER	Yukinobu ODA, Takao TOUE, Kazuyoshi IKEJIRI, Yoshio ODAKA	299-304
DEVELOPMENT OF MARINE SURVEYING SYSTEM USING REAL-TIME-KINEMATIC GPS	Atsushi FURUKAWA, Yoshinori NITTA, Ikuhide TOKAMI	305-310
PERFORMANCE OF A FLOATING BREAKWATER BY THE USE OF WAVE SLAMMING PHENOMENA	Takayuki NAKAMURA, Kenich KATO, Toru KONO, Minoru	311-316
ANALYSIS OF THE LIMIT WORKING CONDITIONS OF VESSELS BY QUESTIONNAIRE AND NUMERICAL SIMULATION OF SHIP MOTIONS	Satoru SHIRAISHI, Go ISHIMI, Takeshi TANIGUCHI	317-322
CHARACTERISTICS OF SHIP MOTIONS MEASURED BY OBSERVATION SYSTEM OF MOTIONS FOR WORKING CRAFT	Go ISHIMI, Satoru SHIRAISHI, Takeshi TANIGUCHI	323-328
CHARACTERISTICS OF UNSTEADY FLUID LIFT FORCE OF CIRCULAR CYLINDER ACTED BY AIR SPOUTING TYPE ACTUATOR	Toru IJIMA, Hideo KONDO, Yasuhisa SATO, Natuhiko OTUKA	329-332
EFFECT OF BLOCK SCALE AND REYNOLDS NUMBER FOR WAVE PRESSURE ON UPRIGHT SEAWALL PROVIDED WITH WAVE ABSORBING WORKS	Yasuo IDA, Teruo HAGIHARA, Mituhiko KODAI	333-338

SLIDING CHARACTERISTICS OF UPRIGHT SECTION OF COMPOSITE BREAKWATERS COVERED WITH WAVE-DISSIPATING BLOCKS IN CONSTRUCTION STAGES	Katsumi KAMIKUBO, Katsutoshi KIMURA, Takashi FUJIIKE, Sadamitsu AKEDA, Hideaki TAKEDA, Tsutomu ENDO	339-344
NUMERICAL ANALYSIS ON WAVE DISSIPATION USING ARMOR BLOCKS OVER A SUBMERGED BEAKWATER	Hideaki OKUZONO, Hiroshi OKAMOTO	345-350
WAVE FORCES ACTING ON MODEL PLANTS	Kenjiro HAYASHI, Syouichi UEHARA, Toshiyuki SHIGEMURA, Koji FUJIMA, Kazuhiro HAGIWARA	351-356
SHOCK WAVE PRESSURE ON A CAISSON WITH SEMI-CIRCULAR HOLLOW PROJECTIONS	Fumio TADA, Yosiharu MATSUMI, Atusi FUJITA	357-362
INFLUENCE OF STORM SURGE ON SLIDING FAILURE PROBABILITY OF BREAKWATER CAISSON	Hiroyasu KAWAI, Tetsuya HIRAISHI	363-368
AN EXAMPLE OF MODEL EXPERIMENT FOR WAVE ABSORBING CAISSON	Koichiro HAYASHI, Etsuko TAKATA, Makoto SATOME, Iwao	369-374
REDUCTION OF IMPULSIVE BREAKING WAVE PRESSURES BY WAVE DISSIPATING WORKS WITH LOW CREST ELEVATION	Keisuke MURAKAMI, Yuji KAMIKUBO, Isao IRIE, Satoshi KATUKI, Yasuto KATAOKA,	375-380
A HYDRAULIC EXPERIMENTAL STUDY ON CYLINDER CAISSON BREAKWATERS WITH OPENINGS INTERMITTENTLY ALONG THE CENTER LINE OF BREAKWATERS	Tatsuyuki SHISHIDO, Shigeki SHIRAIWA, Yasushi OZAKI, Satoru YAMAMOTO, Kenichiro	381-386
EXPERIMENTAL STUDY ON WAVE INDUCED CURRENT AROUND WALL-TYPE VERTICAL BREAKWATER	Minoru OCHIAI, Shigekatsu ENDO	387-392
WAVE OVERTOPPING OVER A GENTLE SLOPE AND ROUGHENED SEAWALL	Masao INOUE, Hiroaki SHIMADA, Tomohiro YASUDA	393-398
THE EXPERIMENTAL STUDY ON CHARACTERISTICS OF WAVE OVERTOPPING OF GENTLE SLOPE SEAWALLS WHICH HAVE WAVE DISSIPATING BLOCKS(PART 3).	Kazuo KATAHIRA, Teruhiko SUGINO, Akira NAKAI, Takanori MORIKAWA, Kenichiro KANETA	399-404
CREST HEIGHT AND WAVE PRESSURE OF A NEW TYPE OF SHORE PROTECTION TO REDUCE WAVE OVERTOPPING	Yasuto KATAOKA, Takehiro NAKAOKA, Tomokazu NAKAGAWA, Yoshihiro HAMAZAKI, Kenichi SUGII, Keisuke	405-409
EFFECTS OF VARIOUS CROSS-SECTIONS AND ADFREEZE BOND STRENGTH ON VERTICAL LCE LOAD	Takashi TERASHIMA, Tsutomu INUZUKA, Kyoichi NARITA, Hideki HONDA, Kaori OSHIMA, Norihiro USAMI, Hiroshi SAEKI	411-416
THE EXPERIMENTAL STUDY ON THE FLUID RESISTANCE OF TRAPPED ICE FLOES	Shunsuke MAKITA, Takaharu KAWAI, Hiroshi SAEKI, Humihiro	417-422
ON THE ICE/STRUCTURE INTERACTION IN MEDIUM SCALE FIELD INDENTATION TESTS (PART 3)	Takahiro TAKEUCHI, Satoshi AKAGAWA, Muneo KAWAMURA, Masafumi SAKAI, Hidehiro KATSUI, Hisao MATSUSHITA, Takashi TERASHIMA, Naoki NAKAZAWA, Kenichi HIRAYAMA, Hiroshi SAEKI	423-428
LCE SHEET STRAIN AREA MEASUREMENTS WITH INDENTATION RATE CHANGE DURING LCE/STRUCTURE INTERACTIONS IN FIELD INDENTATION TESTS	Masashi SAKAI, Hidehiro FUJII, Takahiro TAKEUCHI, Muneo KAWAMURA, Hidehiro KATUI, Hisao MATSUSHITA, Tooru TAKAWAKI, Takashi TERASHIMA,	429-434
DEVELOPMENT OF RECOVERY METHODS FOR SPILLED OIL UNDER LCE FLOES	Kaori OHSHIMA, Norihiro USAMI, Shinjiro TAKAHASHI, Kunihiro KAWAI, Natsuhiko Ohtsuka, Yasunori WATANABE, Hiroshi	435-439
HORIZONTALLY TWO-DIMENSIONAL ANALYSIS FOR A TECHNOLOGY OF CONTROLLING POLLUTANT'S DISPERSION	Syuuji MORITA, Keigo NAKAMURA, Kazuo MURAHASHI, Hiroshi KAMORI, Osamu ARAI	441-446
IMPACT OF HEAVY OIL DEPOSITION ON COASTAL ENVIRONMENT	Fuminori KATO, Shinji SATO	447-452
EVALUATION OF ABILITY FOR WATER QUALITY PURIFICATION AT THE SHOAL AND TIDAL FLAT ZONE IN HAKATA BAY.	Kenichi FUJITA, Kenichi TANAKA, In Cheol Lee, Akira HOSHIKA, Tetsuya KUSUDA	453-458
FIELD MEASUREMENT OF THE AERIAL DISTRIBUTION OF SEA-SALT PARTICLES IN THE NORTHEM KYUSHU ARTIFICIAL COASTAL ZONE	Masatoshi KATAYAMA	459-464
ECONOMICAL AND ENVIRONMENTAL IMPACTS ON THE OKHOTSK SEA COAST OF HOKKAIDO DUE TO SAKHALIN OIL AND GAS DEVELOPMENT	Michihiko TOKUNAGA, Michifumi HAYASHI, Masashi KATAGIRI, Sinnjiro TAKAHASHI, Kaori OHSHIMA, Natshiko OHTSUKA, Hiroshi SAEKI	465-470
ASSESSMENT OF RESIDENTS FOR IMPROVEMENT WORKS IN FISHING PORT AND COAST -ON THE SEVEN ISOLATED ISLANDS WITHIN ISE BAY AND THEIR OPPOSITE SIDE PORTS IN MAINLAND	Hiroshi MURAKAMI, Masaaki ASAI, Masahiro ITO	471-476
STUDIES ON EVALUATE METHOD CONCERNING LEISURE PLACES IN PORTS	Tetsuhiro KUSUYAMA, Toru SANO, Sadamitsu AKEDA, Yuzo MIZUNO, Hikoichi KUBO, Sigeru	477-482

STRUCTURAL ANALYSIS OF THE SOCIO-ENVIRONMENTAL SYSTEM OF FISHERY VILLAGES BY THE DEMATEL METHOD	Izumi KODAMA, Tomoko MURAKAMI, Takuya MATSUMOTO, Katsutoshi SUGAWARA, Shinya SUGAWARA, Akira NAGANO	483-488
FUTURE OUTLOOK AND SPECIFIC REQUIREMENTS OF FISHING PORT AND FISHERY VILLAGE AREAS (USING HOKKAIDO AS AN EXAMPLE)	Atsumi FURUYA, Youichi ATUMI, Takashi KOIZUKA, Hiroshi TOMITA, Akira NAGANO	489-493
A STUDY ON TECHNIQUES FOR AESTHETIC EVALUATION OF COASTAL LANDSCAPES	Kyoichi NAGASE, Yuhei MATSUBARA, Hideaki NODA	495-500
ASSESSMENT OF ENVIRONMENTAL EFFECTS AND SPACE UTILIZATION CONFLICTS FOR WAVE POWER GENERATION	Hideo KONDO, Senji OSANAI, Mitsuru KATO	501-505
INVESTIGATION OF RESIDENTS' CONSCIOUSNESS ON COMFORT LEVEL OF COASTAL ENVIRONMENT IN NORTHERN KYUSHU COASTAL ZONE	Masatoshi KATAYAMA	507-512
MITIGATION ON COASTAL ZONE AT FRENCH MEDITERRANEAN SEA AND APPLICABILITY FOR JAPAN	Masao KONISHI, Tsutomu INADA, Yuko TANAKA	513-518
MITIGATION, ITS CURRENT SITUATION AND PROBLEMS IN U.S.A.	Kota NAKASE, Takao TOE, Teiji KIKUCHI	519-524
CHARACTERISTICS OF SEA WATER EXCHANGE IN SEMI-ENCLOSED AREAS	Tomotsuka TAKAYAMA, Hiroshi YOSHIOKA, Tsuyoshi OGURI	525-530
SEAWATER EXCHANGE ON ARMORED CAISSON BREAKWATER WITH INTAKE HOLES	Sadamitsu AKEDA, Yasuji YAMAMOTO, Katsutoshi KIMURA, Shuji MIFUNE	531-534
DEVELOPMENT OF A NEW-TYPE WAVE ABSORBING WORKS TO RECREATE A SANDY BEACH	Masahiro ITO, Yoshito TSUCHIYA, Hidetaka SUZUKI, Yuji NOGUCHI, Ken MAEDA, Masaki TANIYAMA	535-540
INFLUENCE OF CARBONATION ON THE PENETRATION OF CHLORIDE ION INTO CONCRETE WITH ADMIXTURES	Yasuhiro UEMURA, Hiroshi HARADA	541-546